

**REMARKS**

Claims 1-2 and 9-10 are pending in this application. By this amendment, claims 1-2 are amended, claims 3-8 are canceled, and claims 9-10 are added. Support for amended claims 1 and 2 can be found in claims 1, 5 and 6 as originally filed; support for claims 9-10 can be found in claims 1, 2 and 7 as originally filed. No new matter is added.

**I. Rejections under 35 U.S.C. §103**

Claims 1-6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hisano. Additionally, claims 7-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Hisano in view of Matsumura. Claims 3-8 are canceled thus rendering their rejection moot. Applicants respectfully traverse the rejections with respect to the amended claims.

Independent claim 1 is directed to an xDSL modem transformer having a magnetic core, wherein the magnetic core comprises 23.8 to 24.2 mol% MnO, 23.0 to 23.4 mol% ZnO, and 52.6 to 53.0 mol% Fe<sub>2</sub>O<sub>3</sub>, and the transformer has a total harmonic distortion of not more than -80 dB at 5kHz. Independent claim 2 is directed to an xDSL modem transformer having a magnetic core, wherein the magnetic core comprises 23.0 to 23.4 mol% MnO, 23.4 to 23.8 mol% ZnO, and 53.0 to 53.4 mol% Fe<sub>2</sub>O<sub>3</sub>, and the transformer has a total harmonic distortion of not more than -80 dB at 5kHz. Such xDSL transformers are not taught or suggested by the cited references.

Hisano is directed to a communication transformer having a magnetic core structure. The Office Action alleges that Hisano discloses a magnetic core structure comprising 51.75 - 3.35 mol% Fe<sub>2</sub>O<sub>3</sub>, 20 - 25.75 mol% ZnO, and 22.5 - 27.4 mol MnO, and that the ranges overlap the claimed ranges of the invention.

Hisano does not teach or suggest an xDSL modem transformer having the magnetic core ranges recited in amended independent claims 1 and 2. Hisano merely discloses 3 examples, H5A, H5B, and H5C, that respectively comprise 53.35 mol%, 52.60 mol% and

51.75 mol% of Fe<sub>2</sub>O<sub>3</sub>; 26.4 mol%, 27.40 mol%, and 22.50 mol% of MnO; and 20.25 mol%, 20.00 mol% and 25.75 mol% of ZnO. While some of the component values may overlap the claimed values, these are separate individual examples, with specific component values that are outside the claimed ranges. These examples as a whole do not fall within the ranges claimed by amended independent claims 1 and 2. Furthermore, nowhere does Hisano teach or suggest how the example compositions could or should be modified so as to satisfy all of the claim limitations.

Additionally, there is no indication that the Hisano magnetic core can be used for an xDSL modem transformer as claimed. Nor does Hisano teach or suggest that the disclosed transformer has a particularly superior value of -88 dB in a broad frequency band.

The Office Action also asserts that "Since the taught composition overlaps the claimed composition, one of ordinary skill in the art would expect the taught composition to inherently have a total harmonic distortion of 5kHz which overlaps the claimed range, absent any showing to the contrary". However, the 5kHz total harmonic distortion would not be inherent because the values disclosed in Hisano do not overlap the values in amended independent claims 1 and 2.

Therefore, because the invention of claims 1 and 2 are not taught or suggested by Hisano, the rejection of independent claims 1 and 2 should be withdrawn. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claims 9-10 and as discussed above, Hisano does not disclose the ranges claimed by amended independent claims 1 and 2. Therefore, dependent claims 9-10 are also patentable over Hisano.

**II. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-3 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Petition for Extension of Time

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